



# Polyols

## Dow Polyurethanes CASE Market Applications



### Strength to Meet Your Challenges and Opportunities

Dow is the leading manufacturer of polyether polyols and isocyanates, key components in the production of polyurethane products – throughout the coatings, adhesives, sealants and elastomers (CASE) marketplace.

It takes more than skill to be the best. It requires a resolve to seek new challenges and opportunities. It means creating solutions for materials that will help your products go the distance.

Dow's polyurethanes chemistry has far-reaching applications throughout the CASE market. We see hundreds of ways that polyurethanes benefit us every day of our lives. And Dow helps make many of the products you see better. Dow is continually investing in research for innovative chemistries to meet your emerging product performance needs. When you use the latest technologies and products from Dow, your products have a strong and steady competitive advantage.

### Products to Help You Go the Distance

Dow's extensive portfolio of VORANOL\* polyether polyols offers a wide variety of performance and processing attributes, specifically designed to meet your needs in CASE applications.

*See reverse for VORANOL polyether polyol technical data.*

Dow Polyurethanes, a leading supplier of polyurethane raw materials, offers one of the broadest lines of polyurethane products and systems in the industry. Dow's raw materials are used in rigid foams, flexible foams, adhesives, sealants, coatings, elastomers and composites, as well as in many other applications. Applications for these products cover a wide range of end uses, including cushioning for furniture and bedding, carpet backing, automotive seating and instrument panels, office furniture, flooring and insulation for appliances, sheathing and roofing.

# VORANOL Polyether Polyols for CASE Applications

Product	OH Number	Functionality	Average Molecular Weight	Initiator	Flash Point <sup>1</sup> °F [°C]	Density lb/gal (g/cc)	Viscosity <sup>2</sup> 77° F (25° C) [cSt]
VORANOL 220-028	28	2.0	4000	Propylene glycol	446 (230)	8.36 (1.00)	880
VORANOL 220-056	56	2.0	2000	Propylene glycol	390 (199)	8.340 (0.999)	300
VORANOL 220-056N	56	2.0	2000	Propylene glycol	390 (199)	8.340 (0.999)	300
VORANOL 220-094	94	2.0	1200	Propylene glycol	435 (224)	8.34 (1.01)	175
VORANOL 220-110	110	2.0	1000	Propylene glycol	360 (182)	8.37 (1.00)	160
VORANOL 220-110N	110	2.0	1000	Propylene glycol	360 (182)	8.37 (1.00)	160
VORANOL 220-260	260	2.0	432	Propylene glycol	330 (165)	8.43 (1.01)	75
VORANOL 220-530	530	2.0	212	Aniline	325 (163)	8.39 (1.00)	Solid
VORANOL 222-029	29	2.0	4000	Propylene glycol	420 (216)	8.49 (1.02)	790
VORANOL 222-056	56	2.0	2000	Propylene glycol	>420 (>216)	8.46 (1.01)	321
VORANOL 230-056	56	3.0	3000	Glycerine	440 (227)	8.394 (1.006)	475
VORANOL 230-112	112	3.0	1500	Glycerine	350 (177)	8.46 (1.01)	297
VORANOL 230-238	238	3.0	700	Glycerine	500 (260)	8.59 (1.03)	238
VORANOL 230-660	673	3.0	250	Glycerine	370 (188)	9.07 (1.02)	850
VORANOL 232-027	28	3.0	6000	Glycerine	435 (224)	8.48 (1.01)	1180
VORANOL 232-034	34	3.0	4900	Glycerine	365 (185)	8.49 (1.01)	860
VORANOL 232-035	34	3.0	4900	Glycerine	435 (224)	8.45 (1.02)	860

Note: These are typical properties only, and are not to be regarded as sales specifications.

<sup>1</sup>PMCC <sup>2</sup>Viscosity is measured in centistokes.

For additional polyether polyol product information from Dow, such as Technical Data Sheets (TDS) or Safety Data Sheets (SDS or MSDS) please contact the Dow Customer Information Center at 1-800-441-4DOW (4369). From Europe, call 32 3 450 2240.

**The Dow Chemical Company • Dow Polyurethanes**  
 9008 Dow Center • Midland, MI 48674 • 1-800-441-4369  
[www.dow.com](http://www.dow.com) • [www.PUR-CASE.com](http://www.PUR-CASE.com)

#### Customer Notices

Dow encourages its customers to review their applications of Dow products from the standpoint of human health and environmental quality. To help ensure that Dow products are not used in ways for which they were not intended or tested, Dow personnel are willing to assist in dealing with ecological and product safety considerations. Your Dow representative can arrange the proper contacts.

Dow will not knowingly sell or sample any products into any commercial or developmental application which is intended for: permanent or long-term contact with internal body fluids or internal body tissues; use in cardiac prosthetic devices regardless of the length of time involved; use as a critical component in medical devices that support or sustain human life; or use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction.

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